

CLAIMS

1. A prophylactic/therapeutic agent for cancer, comprising a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof.

2. A prophylactic/therapeutic agent for cancer, comprising a compound or its salt inhibiting the expression of a gene for a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

3. An antisense polynucleotide containing the entire or part of a base sequence complementary or substantially complementary to a base sequence of a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

4. The antisense polynucleotide according to claim 3, which has the base sequence represented by SEQ ID NO: 10.

5. A pharmaceutical comprising the antisense polynucleotide according to claim 3.

6. The pharmaceutical according to claim 5, which is a prophylactic/therapeutic agent for cancer.

7. A diagnostic agent comprising the antisense polynucleotide according to claim 3.

8. The diagnostic agent according to claim 7, which is a diagnostic agent for cancer.

9. An antibody to a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof.

10. A pharmaceutical comprising the antibody according to claim 9.

11. The pharmaceutical according to claim 10, which is a prophylactic/therapeutic agent for cancer.

12. A diagnostic agent comprising the antibody according to claim 9.

13. The diagnostic agent according to claim 12, which is a diagnostic agent for cancer.

14. A diagnostic agent comprising a polynucleotide encoding a protein

comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

15. The prophylactic/therapeutic agent for cancer according to claim 1, 2, 6 or 11, wherein the cancer is colon cancer, breast cancer, lung cancer, prostate cancer, esophageal cancer, gastric cancer, liver cancer, biliary tract cancer, spleen cancer, renal cancer, bladder cancer, uterine cancer, testicular cancer, thyroid cancer, pancreatic cancer, brain tumor, ovarian cancer or blood tumor.

16. The diagnostic agent according to claim 8, 13 or 14, wherein the cancer is colon cancer, breast cancer, lung cancer, prostate cancer, esophageal cancer, gastric cancer, liver cancer, biliary tract cancer, spleen cancer, renal cancer, bladder cancer, uterine cancer, testicular cancer, thyroid cancer, pancreatic cancer, brain tumor, ovarian cancer or blood tumor.

17. A prophylactic/therapeutic agent for cancer comprising a compound or its salt inhibiting the activity of ELOVL2.

18. A prophylactic/therapeutic agent for cancer comprising a compound or its salt inhibiting the expression of ELOVL2.

19. A method of screening a prophylactic/therapeutic agent for cancer, which comprises using a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof.

20. A kit for screening a prophylactic/therapeutic agent for cancer, comprising a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof.

21. A prophylactic/therapeutic agent for cancer, which is obtainable by using the screening method according to claim 19 or the screening kit according to claim 20.

22. A method of screening a prophylactic/therapeutic agent for cancer, which comprises using a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

23. A kit for screening a prophylactic/therapeutic agent for cancer, comprising a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

24. A prophylactic/therapeutic agent for cancer, which is obtainable by using the screening method according to claim 22 or the screening kit according to claim 23.

25. An apoptosis promoting agent comprising a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof.

26. An apoptosis promoting agent comprising a compound or its salt inhibiting the expression of a gene for a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

27. An apoptosis promoting agent comprising the antisense polynucleotide according to claim 3.

28. An apoptosis promoting agent comprising the antibody according to claim 9.

29. A method of screening an apoptosis promoter, which comprises using a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof.

30. A method of screening an apoptosis promoter, which comprises using a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, or its partial peptide.

31. A method of preventing/treating cancer, which comprises administering to a mammal an effective dose of a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof, or an effective dose of a compound or its salt inhibiting the expression of a gene for the protein.

32. A method of preventing/treating cancer, which comprises inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof, or inhibiting the expression of a gene for the protein.

33. Use of a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid

sequence represented by SEQ ID NO: 1, its partial peptide, or a salt thereof, or a compound or its salt inhibiting the expression of a gene for the protein, to manufacture a prophylactic/therapeutic agent for cancer.

34. A prophylactic/therapeutic agent for cancer comprising a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof.

35. A prophylactic/therapeutic agent for cancer comprising a compound or its salt inhibiting the expression of a gene for a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, or its partial peptide.

36. An antisense polynucleotide containing the entire or part of a base sequence complementary or substantially complementary to a base sequence of a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, or its partial peptide.

37. The antisense polynucleotide according to claim 36, which has the base sequence represented by SEQ ID NO: 25.

38. A pharmaceutical comprising the antisense polynucleotide according to claim 36.

39. The pharmaceutical according to claim 38, which is a prophylactic/therapeutic agent for cancer.

40. A diagnostic agent comprising the antisense polynucleotide according to claim 36.

41. The diagnostic agent according to claim 40, which is a diagnostic agent for cancer.

42. An antibody to a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof.

43. A pharmaceutical comprising the antibody according to claim 42.

44. The pharmaceutical according to claim 43, which is a prophylactic/therapeutic agent for cancer.

45. A diagnostic agent comprising the antibody according to claim 42.

46. The diagnostic agent according to claim 45, which is a diagnostic agent for cancer.

47. A diagnostic agent for cancer comprising a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, or its partial peptide.

48. The prophylactic/therapeutic agent according to claim 34, 35, 39 or 44, wherein the cancer is colon cancer, breast cancer, lung cancer, prostate cancer, esophageal cancer, gastric cancer, liver cancer, biliary tract cancer, spleen cancer, renal cancer, bladder cancer, uterine cancer, testicular cancer, thyroid cancer, pancreatic cancer, brain tumor, ovarian cancer or blood tumor.

49. The diagnostic agent according to claim 41, 46 or 47, wherein the cancer is colon cancer, breast cancer, lung cancer, prostate cancer, esophageal cancer, gastric cancer, liver cancer, biliary tract cancer, spleen cancer, renal cancer, bladder cancer, uterine cancer, testicular cancer, thyroid cancer, pancreatic cancer, brain tumor, ovarian cancer or blood tumor.

50. A prophylactic/therapeutic agent for cancer comprising a compound or its salt having an action of inhibiting the activity of Staufen homolog 2.

51. A prophylactic/therapeutic agent for cancer comprising a compound or its salt having an action of inhibiting the expression of Staufen homolog 2.

52. A method of screening a prophylactic/therapeutic agent for cancer, which comprises using a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof.

53. A kit for screening a prophylactic/therapeutic agent for cancer, comprising a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof.

54. A prophylactic/therapeutic agent for cancer, which is obtainable by using the screening method according to claim 52 or the screening kit according to claim 53.

55. A method of screening a prophylactic/therapeutic agent for cancer, which comprises using a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, or its partial peptide.

56. A kit for screening a prophylactic/therapeutic agent for cancer, comprising a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID

NO: 16, or its partial peptide.

57. A prophylactic/therapeutic agent for cancer, which is obtainable by using the screening method according to claim 55 or the screening kit according to claim 56.

58. An apoptosis promoting agent comprising a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof.

59. An apoptosis promoting agent comprising a compound or its salt inhibiting the expression of a gene for a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, or its partial peptide.

60. An apoptosis promoting agent comprising the antisense polynucleotide according to claim 36.

61. An apoptosis promoting agent comprising the antibody according to claim 42.

62. A method of screening an apoptosis promoter, which comprises using a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof.

63. A method of screening an apoptosis promoter, which comprises using a polynucleotide encoding a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, or its partial peptide.

64. A method of preventing/treating cancer, which comprises administering to a mammal an effective dose of a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof, or a compound or its salt inhibiting the expression of a gene for the protein.

65. A method of preventing/treating cancer, which comprises inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof, or inhibiting the expression of a gene for the protein.

66. Use of a compound or its salt inhibiting the activity of a protein comprising the same or substantially the same amino acid sequence as the amino acid

sequence represented by SEQ ID NO: 16, its partial peptide, or a salt thereof, or a compound or its salt inhibiting the expression of a gene for the protein, to manufacture a prophylactic/therapeutic agent for cancer.